RENEW WISCONSIN

July 28, 2022

Ms. Kristy Nieto
Public Service Commission
P.O. Box 7854
Madison, WI 53707-7854

RE: Quadrennial Planning Process IV, Phase II Memorandum (Docket 5-FE-104)

Dear Ms. Nieto,

RENEW Wisconsin (RENEW) appreciates the opportunity to comment on the Public Service Commission (Commission) memorandum (PSC REF#:442095) regarding the Quadrennial (Quad) Planning Process IV, Phase II for the Focus on Energy® Program (Focus).

Introduction & Summary:

We believe the Commission's decisions in the Spring of 2022 set forth a positive pathway for the Focus program. We hope the Commission builds on that progress during this second phase of the planning process. We urge the Commission to support alternatives to strengthen the state's economy and protect public health. Focus can achieve these objectives by providing adequate support for local renewable energy and advancing Wisconsin's climate goals, as stated in Executive Order 38.[1]

Our comments are focused on six issues addressed in the Commission memo. These issues are time value of energy efficiency and renewable energy, market transformation, avoided cost, carbon value, renewable energy budget, and underserved customers. RENEW recommends that the Commission adopt the following alternatives.

[1] Executive Order. No. 38 – Governor Tony Evers, 2019

B. Time-Varying Value of Energy Efficiency and Renewable Resources

Alternative One: Investigate opportunities to integrate the time-varying value of energy efficiency and renewable energy into program operations.
Sub-Alternative A: The Focus Delegated Commissioner shall determine the appropriate source of funds for this research later.

F. Resource Acquisition and Market Transformation

Alternative Two: Continue emphasizing near-term savings but increase the program's emphasis on market.
Sub-Alternative A: Direct Commission staff to propose a heat pump adoption target in Phase III of Quad IV Planning.

I. Avoided Costs

2. Avoided Electric Capacity Costs

Alternative One: Maintain the current approach to calculating avoided electric capacity costs.

3. Avoided T&D Costs

Alternative One: Status Quo. Maintain the current approach to calculating avoided transmission and distribution costs.
Alternative Two: Direct EWG to propose an alternative method for calculating avoided transmission and distribution costs for the Commission's consideration.

J. Carbon Value

Alternative Two: EWG shall propose an updated market-based carbon value for the Commission's consideration.
Alternative Three: Use a social cost of carbon.

B. Renewables

Alternative Four: Do not set a spending maximum for renewables and allow the Program Administrator to allocate funding as necessary to meet goals.

C. Underserved and Rural and Other Customers

Alternative Three: Direct the Program Administrator to conduct analysis during the first year of Quad IV to better identify underserved customers.
Sub-Alternative A: The analysis shall emphasize underserved customers facing the highest energy burdens.

Phase II - Micro Implementation Decisions

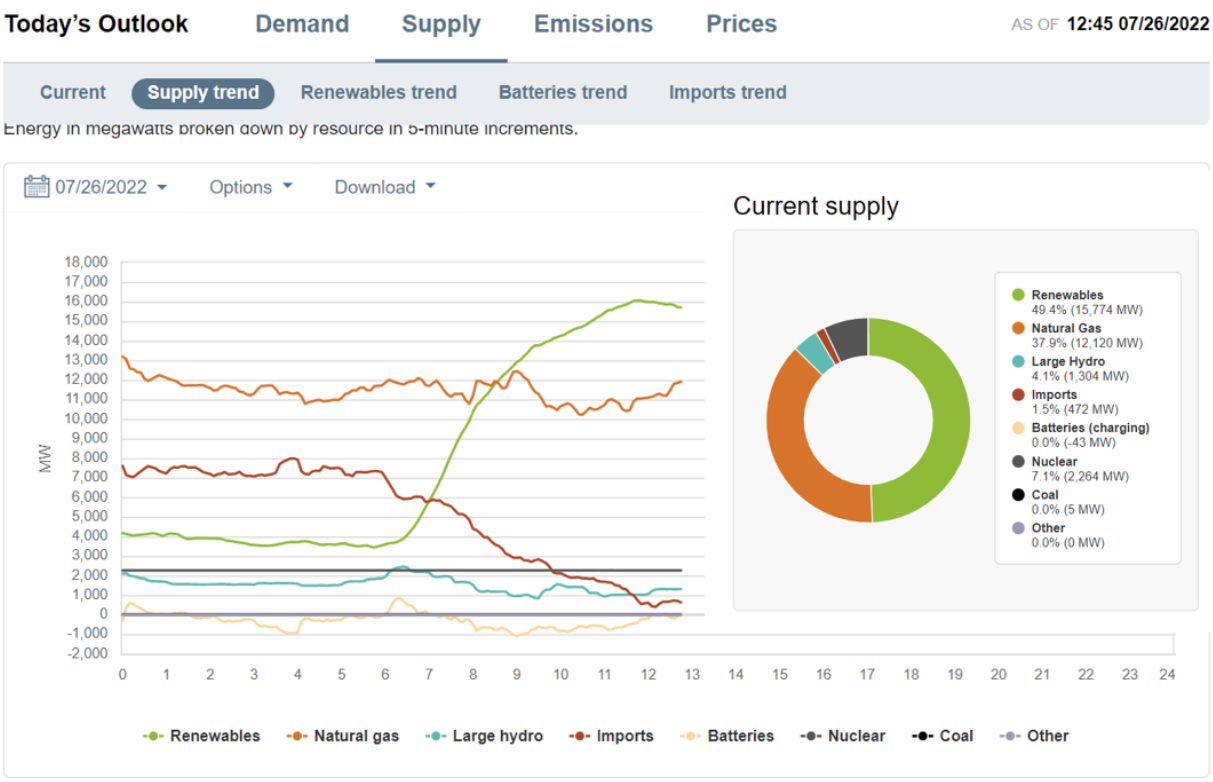
I. Priorities

B. Time-Varying Value of Energy Efficiency and Renewable Resources

> **Alternative One:** Focus shall investigate opportunities to integrate the time-varying value of energy efficiency and renewable resources

RENEW supports Alternative One because it will put Focus on a path to understanding the real benefits of different efficiency measures based on the value they provide to the grid. As renewable energy is increasingly brought online, the benefits of efficiency measures will vary depending on the time of day. Alternative one will provide vital insight to cost-effectively reduce emissions through energy efficiency responsive to changing grid conditions.

Program statute supports such an investigation by directing the program to pursue "research and development projects that support sound public policy and provide information to policymakers, program administrators, utilities, and the public about the environmental and economic impacts of energy generation, delivery, and use."[2] Adopting Alternative one will further support Phase I decisions to increase Focus' analysis and data efforts on decarbonization.[3]



[2] Wisconsin Admin. Code § PSC 137.05(6)

[3] https://apps.psc.wi.gov/ERF/ERFview/viewdoc.aspx?docid=442095

Figure 1:Electricity Supply trend and Current supply as of 12:50, 07/26/2022 from ISO Today.[4] The graphs show variability in electricity supply from different energy sources. Efficiency measures that save energy during times of high demand and low supply or carbon-intensive supply provide more value to ratepayers and reduce overall emissions.

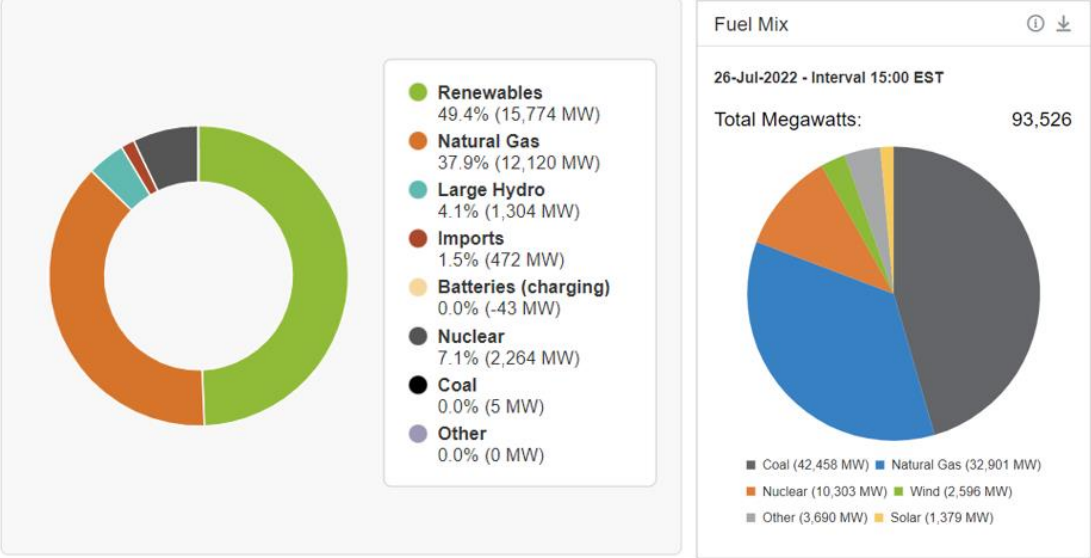


Figure 2: Electricity Supply for California ISO (31,724 MW) as of 12:50, 07/26/2022, versus Electricity Supply for MISO (93,526 MW) as of 15:00, 07/26/2022. Renewables are meeting 50% of California's electricity demand at the time of the screenshots, which illustrates that significant renewable energy penetration levels are feasibly under current technical and economic conditions. Screenshots from the ISO Today app[5] and the MISO app.[6]

Similarly, leveraging variable loads and energy storage with appliances such as heat pump water heaters[7] will benefit residents as electric technologies gain market share in the state. Although not an immediate concern, starting to track this data now provides the state a significant opportunity for understanding demand response, electrification, and the opportunity for beneficial load shifting.[8] RMI analysis found that even with the addition of 800,000 heat pumps and no demand response measures, Wisconsin would not hit winter peak capacity.[9] However, significant adoption past 800,000 heat pumps will require deploying energy efficiency and demand response measures to mitigate electric grid peaking in the winter. As electrification increases in the state, program administrators can use outputs from investigating the time-varying value of energy efficiency resources to guide future efforts to cost-effectively mitigate winter peaks and constraints.[10]

[4] https://www.caiso.com/TodaysOutlook/Pages/supply.html#section-supply-trend
[5] https://www.caiso.com/TodaysOutlook/Pages/supply.html#section-supply-trend
[6] https://www.misoenergy.org/
[7] https://www.nrdc.org/experts/pierre-delforge/heat-pump-water-heaters-clean-energy-batteries
[8] https://www.aceee.org/sites/default/files/pdfs/u2101.pdf
[9] https://rmi.org/three-questions-wisconsinites-are-asking-about-heat-pumps/
[10] https://www.aceee.org/white-paper/2021/10/energy-efficiency-and-demand-response-tools-address-texas-reliability

F. Resource Acquisition and Market Transformation

> Alternative Two: Continue emphasizing near-term savings but increase the program's emphasis on market transformation by identifying ways to adapt Focus' existing portfolio to achieve long-term market effects. The Focus Evaluator shall report on progress to adapt existing portfolio activities to achieve long-term market effects.
> Sub-Alternative A: Direct Commission staff to propose a heat pump adoption target in Phase III of Quad IV Planning.

RENEW supports Alternative Two to ensure that Focus remains cost-effective in the near term while it develops the appropriate programs and metrics to achieve cost-effective decarbonization. Several stakeholder groups agree that Focus must leverage its position in the market to reduce adoption barriers for new technologies such as heat pumps and heat pump water heaters. Focus helped expand the market for high-efficiency furnaces, making Wisconsin a national energy efficiency leader. Now it can repeat that process for heat pumps and heat pump water heaters to set the state on a leadership path again.

RENEW recommends that the Commission staff propose heat pump adoption targets for HVAC and water heating in Phase III of Quad IV Planning to provide clear directions to the program administrator. The Commission can use examples from other statewide energy efficiency programs such as Efficiency Maine[11] to inform program design and set program goals.

I. Avoided Costs

2. Avoided Electric Capacity Costs

> Alternative One: Status Quo. For the purposes of evaluating Focus, avoided electric capacity costs shall continue to be based on the unit cost of a peaker plant consistent with the approach approved by the Commission during Quad III.

RENEW supports Alternative One, which continues the status quo reference of the Midcontinent Independent System Operator's (MISO) Cost of New Energy (CONE) plus a reference to the MISO Narrow Constrained Area (NCA) Mitigation Threshold Report. As stated in the staff's memo summarizing the Commission's conclusion to adopt this method, RENEW agrees that this approach "is consistent with industry best practices, provides an appropriate level of regional specificity, and properly captures the full cost of operating and new peaking resources."

3. Avoided T&D Costs

> Alternative One: Status Quo. For purposes of evaluating Focus, avoided electric transmission and distribution costs shall continue to be calculated using an incremental cost approach based on recent transmission line investments

[11] https://www.efficiencymaine.com/at-home/ductless-heat-pumps/, https://www.efficiencymaine.com/at-home/water-heating-solutions/heat-pump-water-heaters/

reported in annual investor-owned utility reports and data requested and received from entities owning and operating electric transmission and distribution infrastructure in the state.

Alternative Two: The EWG shall present to the Commission for its consideration an alternative method (or multiple alternative methods) for calculating avoided electric transmission and distribution costs for the purpose of evaluating Focus in Quad IV. The EWG shall submit its proposed recommendation prior to the first program year evaluation of portfolio cost-effectiveness in Quad IV, or by an alternative timeline deemed reasonable by Commission staff.

RENEW supports a combination of Alternatives One and Two, which would allow for the continuation of the status quo method while the EWG investigates an alternative method for Commission consideration in the future. As described in the staff's memo, the status quo method uses a T&D cost approach of recent utility investments with imperfect data, primarily provided by utilities in annual reports to the Commission.

For the development of this T&D alternative, RENEW believes the Commission may wish to consider the avoidance of future T&D costs, for which Focus measures installed today can avoid tomorrow. While recent embedded costs can serve as a proxy for future avoided costs, once T&D assets are installed and rate-based they cannot truly be avoided. Similar to the forward-looking CONE approach described above for avoided capacity costs, a forward-looking avoided T&D cost method can be modeled and implemented.

As one point of reference, the EWG could look to RENEW's analysis in the recent parallel generation dockets as a starting point. RENEW partnered with Synapse Energy Economics consultants to model forward-looking transmission investments related to peak load growth in relation to peak load growth forecasts. This analysis was modeled and calculated for both the Xcel Energy transmission service territory, as well as the ATC transmission service territory, and resulted in a range of avoided transmission costs using a $/kW metric. This $/kW metric can then be applied to peak-rated kW for each Focus measure.

J. Carbon Value

Alternative Two: Focus cost-effectiveness tests shall value avoided CO2 emissions using an updated market-based value. No later than September 30, 2023, the EWG shall provide a report to the Commission on alternatives for an appropriate market-based carbon value, at which time the Commission will select the preferred valuation

Alternative Three: Focus cost-effectiveness tests shall value avoided CO2 emissions using a social cost of carbon using the U.S. Government's Interagency Working Group's "central" estimates.

RENEW supports a combination of Alternatives Two and Three and trusts that the Commission and the EWG will prioritize the public's wellbeing in setting a market-based value that reflects the social and economic impact of CO2 emissions.

Alternatively, Focus could take a more forward-thinking approach and use the social cost of carbon (SCC) to ensure the program more accurately estimates the total economic costs Wisconsinites face from CO2 emissions and the benefits that efficiency and electrification provide. During Phase 1 of the Quad, the Commission directed Focus to begin a transition period to align the program with the state decarbonization goals. To best support this decision, the Commission could adopt the SCC to ensure that broader societal and direct economic emissions costs are accounted for. In doing so, Wisconsin would join 14 other states that have included the SCC in their policies and utility programs. These 14 states use SCC values that vary from the federal SCC ($51/ton) to values well over $100/ton, which are supported by significant peer-reviewed research quantifying the impacts of CO2 emissions.[12]

II. Budgets

B. Renewables

> Alternative Four: Do not set a spending maximum for renewables and allow the Program Administrator to allocate funding as necessary to meet the Commission's goals as long as spending aligns with Focus' statutory obligations and Commission policies.

RENEW supports Alternative Four, which would not set a spending maximum for renewables and allow the Program Administrator to allocate funding as necessary.

As the renewable energy market evolves and renewable energy projects become accessible to customers beyond early adopters, Focus must support affordable access for all Wisconsin ratepayers. Allowing the Program Administrator to allocate funding as necessary will support an adequate renewables budget and will not handcuff the Program Administrator to reduce renewable incentives to meet market growth.

RENEW's comments during the Quadrennial Planning Process III highlighted that the renewable budget from 2008 to 2018 had been "on somewhat of a roller-coaster."[13] At that time, RENEW urged the Commission to support alternatives to ensure that the Renewable Energy program became consistent, predictable, simple, and market-driven. Yet, Focus continues to experience significant variations in the Renewable Energy budget (see figure 4), leading to inconsistencies and unpredictability, such as dwindling residential incentive levels in 2020 and 2021.

While the reduced incentive levels did not decrease participation in 2020 and 2021, it would be premature to assume that this dynamic will carry on in the future, especially as Low-to-Moderate Income (LMI) households try to enter the solar market. Continuing to lower incentives could inadvertently create more barriers for LMI households, which will be shut out from many of the financial benefits realized by high-income early adopters.[14]

[12] https://costofcarbon.org/states

[13] https://apps.psc.wi.gov/ERF/ERFview/viewdoc.aspx?docid=341147

[14] https://eta-publications.lbl.gov/sites/default/files/lmi_program_eval_pre-print.pdf

Failure to adequately incentivize renewable energy projects for LMI households represents a missed opportunity to leverage renewable energy as a pathway to alleviate energy burden.[15] It can undermine public opinion of renewables[16] and ultimately reduce or delay the realization of the benefits of clean energy.[17]

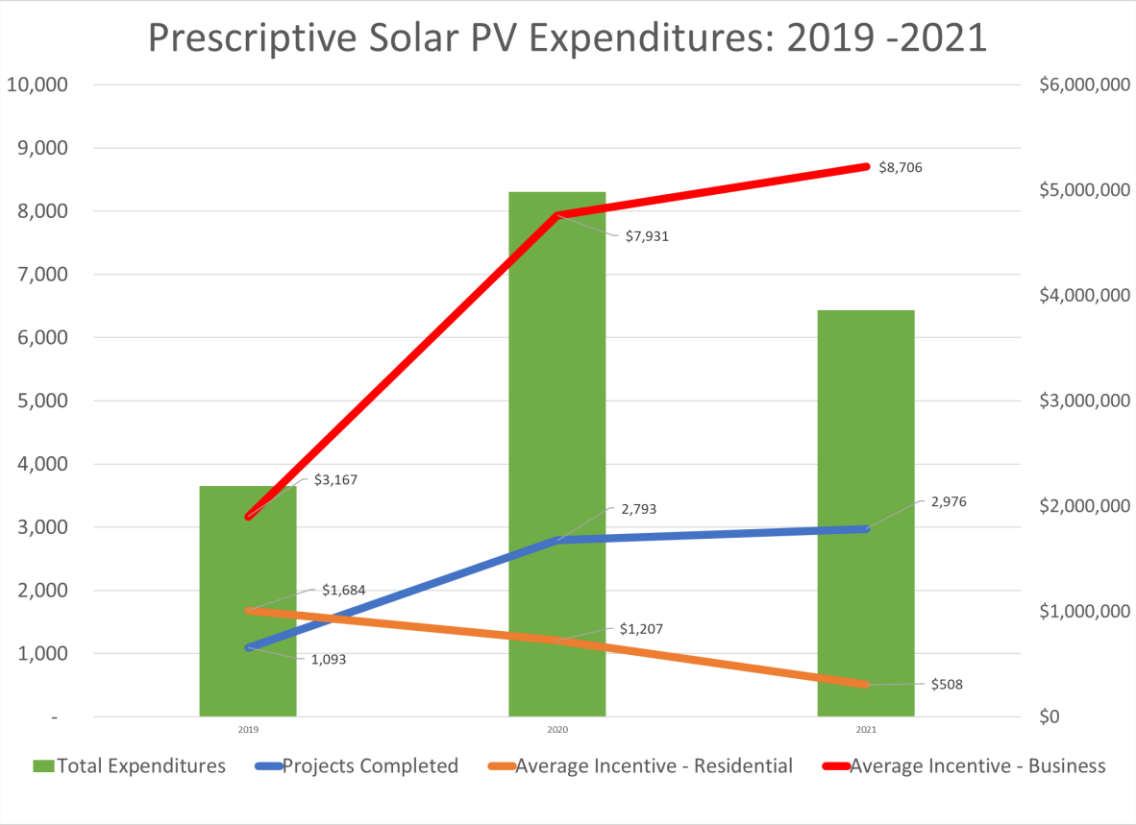


Figure 3: Prescriptive Solar PV Expenditures, Projects Completed, and Average Incentives (2019 -2021). The Program Administrator reduced the maximum incentive for Residential installations to $500 beginning August 15, 2020, to avoid penalties for exceeding the Renewables budget.

RENEW continues to support the principle that all cost-effective renewable technologies and projects be eligible for incentives. The Renewables program should be flexible enough to respond to market demands and meet the needs and desires of the ratepayers who are supporting the program.

[15] Bednar, D. and T. Reames (2020). "Recognition of and response to energy poverty in the United States." Nature Energy.
[16] Welton, S. and J. Eisen (2019). "Clean Energy Justice: Charting an Emerging Agenda." Harvard Environmental Law Review 43: 307-371.
[17] https://eta-publications.lbl.gov/sites/default/files/lmi_program_eval_pre-print.pdf

C. Underserved and Rural and Other Customers

Alternative Three: Direct the Program Administrator to gather additional data and conduct further analysis during the first year of Quad IV to better identify underserved customers, target program offerings and develop KPIs. The Program Administrator shall report back by March 31, 2024, or an alternative timeline deemed reasonable by Commission staff with research results.
Sub-Alternative A: Emphasize underserved customers facing the highest energy burden when gathering additional data and conducting further analysis.

RENEW supports Alternative Three with Sub-Alternative A, which would direct the Program Administrator to conduct analysis to better identify underserved customers and emphasize underserved customers with the highest energy burden. Utility bills are often the second-highest expense for low-income customers after housing. Energy efficiency improvements would have a more dramatic effect on low-income populations than on the general public. The analysis should focus on which technologies and policies would have the greatest impact on low-income customers and the degree to which their energy burdens would be reduced.

Conclusion

To ensure Focus on Energy is aligned with Phase I decisions and broader decarbonization and efficiency goals, we urge the Commission to adopt policies that align with the alternatives recommended in this document. RENEW's recommendations will ensure the program is ready to transition toward decarbonization by energizing the heat pump market, supporting homegrown renewable energy, and mitigating unnecessarily expensive natural gas infrastructure costs. Alongside helping reach Focus program goals, these policies will ensure Focus participants have access to modern, affordable appliances that support Wisconsin's economy and protect the health of local communities.

Sincerely,

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